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EPA Bioremediation Action Committee

What is the BAC?

The Bioremediation Action Committee (BAC) was established in 1990 at an EPA/Industry meeting on environmental applications of biotechnology through the recommendation of over 100 leaders in the field of bioremediation. In response to the *Exxon Valdez* oil spill, the BAC began as a partnership of state and federal governments, academia, trade associations, environmental organizations, and industry to promote the use of bioremediation as a viable cleanup alternative for remediating hazardous waste sites. The U.S. Environmental Protection Agency (EPA) recognized the value of bioremediation and agreed to work with the various participants to enhance the reputation of bioremediation in the remedial technology marketplace.

What is the Mission of the BAC?

The BAC is dedicated to the development of bioremediation technologies focusing on research in the areas of bioventing, co-metabolic processes, in-situ groundwater remediation, and natural attenuation. The BAC strives to:

- Identify priority bioremediation technology development needs
- Establish and oversee subcommittees to plan and implement collaborative research projects to address bioremediation issues
- Address scientific, institutional, and regulatory barriers to bioremediation technologies
- Coordinate activities across organizations

BAC
Bioremediation
Action Committee

BAC Subcommittees

Alternative End Points

Natural Attenuation

Oil Spills

What is the Structure of the BAC?

The BAC was originally created around a central executive committee. Initially developed as a partnership of experts from government, industry, academia, and the public, the BAC has evolved as the original objectives were met and priorities were re-established. The EPA Offices of Research and Development (ORD) and Solid Waste and Emergency Response (OSWER) co-chair the BAC. Some of the areas that the BAC has addressed include education, research, pollution prevention, regulation and permitting, public communications, data and information, establishment of protocols, and spill response, as well as a bioremediation field initiative. In August 1995 the Bioremediation Field Initiative released Version 2.0 of the Bioremediation in the Field Search System (BFSS). This PC-based software product provides access to information from more than 450 sites being tracked by the Bioremediation Field Initiative, allowing users to produce reports on site location, media, contaminants, treatment technologies, costs, and performance. Some of the reports the BAC has distributed include protocols for testing the effectiveness of bioremediation products and guidelines for preparing bioremediation spill response plans.

In 1996, the BAC members expressed their interest in new research areas. Three subcommittees have been developed to address the new research needs and to tackle the new priorities. The new subcommittees will pursue issues related to Alternative Endpoints, Natural Attenuation, and Oil Spills. These self-managed subcommittees:

- Share information about planned and ongoing research
- Define research needs, develop detailed research project plans, and implement projects that often entail field-scale demonstrations
- Ensure that all research is founded on sound scientific and engineering principles
- Enlist partners to support and participate in the collaborative research effort, either with in-kind support or direct funding
- Produce and disseminate scientifically credible results to facilitate broad acceptance of the technology

Annual meetings will be held to review the products of the subcommittees and determine which priority areas require research. All interested organizations are welcome to participate in these open meetings, including forwarding recommendations for new areas of research. BAC members include representatives of industry, federal agencies, state agencies, national laboratories, research centers and institutes, and universities. The BAC members determine research areas and priorities by consensus when new research areas are forwarded. If approved by the BAC members, these research areas may be developed into subcommittees if consensus of the members is obtained on that issue.

What are the Goals of the BAC Subcommittees?

Members of the *Subcommittee on Alternative End Points* have identified four major areas of interest: treatability, ecological tests, human health tests, and surrogate chemical tests. The subcommittee is in the process of developing an overall plan of action. The subccommittee has defined several goals:

- Compile treatability data
- Develop and implement a methodical approach to evaluate the availability and applicability of human health and ecological assays
- Develop mechanisms to collaborate with industry, professional groups, regulators, and enforcement to integrate future research

Members of the *Subcommittee on Natural Attenuation* have identified a need to create a scheme for distinguishing natural attenuation sites based on contaminant type, matrix, and environment. The subcommittee is focusing on what predictive or determinative tools can be created from existing data to use in the decision-makinig process. The subcommittee has defined multiple goals:

- Collaborate on searching the database of sites to get more information
- Determine what minimal effort is required to conclude whether natural attenuation is appropriate for a site

Would You Like More Information?

For more information about the BAC, please contact:

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EPA

Members of the *Subcommittee on Oil Spills* have defined their primary goal as the ability to overcome the skepticism throughout the spill responder community concerning the use and effectiveness of bioremediation. The subcommittee's mission is to promote the acceptance of bioremediation for oil spills by developing a viable, realistic approach for community consideration.